

### Remarks

The Applicants have amended the Specification to place it into final condition for allowance. Entry into the official file is respectfully requested.

New Claims 25 and 26 are directed to a high strength electric resistant welding pipe formed from the coiled, hot-rolled steel strip according to Claims 1 and 17, respectively. Entry into the official file is respectfully requested.

The Applicants acknowledge the comments concerning the claim of priority. The Applicants respectfully submit that they have completed the conditions for the priority claim. The Applicants respectfully submit that certified English translations of the priority documents are not generally required unless the Applicants seek to use those priority documents to overcome a rejection based on prior art. Confirmation of acceptance of the Applicants' claim of priority, as opposed to the use of that claim of priority, is respectfully requested.

Claims 1, 3, 5, 7, 17, 19, 21 and 23 stand rejected under 35 U.S.C. §103 over the combination of Tosaka with Toru. The Applicants respectfully submit that one skilled in the art would not make the combination and such a combination would still not result in the Applicants' claimed subject matter. Reasons are set forth below.

Turning first to Toru, the Applicants respectfully submit that it does not disclose a coiled, hot-rolled steel strip and does not disclose a steel strip that is suitable in a high strength electric resistance welding pipe. These are important differences.

The rejection uses steel "plate" and steel "strip" as synonyms by expressing steel plate as steel strip. The Applicants respectfully submit, however, that those skilled in the art do not equate steel "plate" and steel "strip" as synonyms. Those skilled in the iron and steel field are well aware

that steel plate and steel strip are completely dissimilar products. A steel plate is a rectangular plate having a length of about 12 m at a maximum while a steel strip is typically 1,000 m in length and is wound in a coil shape.

The Applicants' acknowledge the conclusion in the rejection on Page 4, Line 11 that "The limitation that the steel would be 'for a high strength electric resistance welding pipe' is not given patentable weight." Nonetheless, taken in the proper context, this is important. High strength electric resistance welding pipe is only manufactured from coiled steel strip. Electric resistance welding pipe can be continuously and efficiently manufactured only from a steel strip in a coil. The productivity of an electric resistance welding pipe is on the order of 10 times larger than that of a UOE pipe, each of which is manufactured from one sheet each of a steel plate.

Turning now to Tosaka, the Applicants respectfully submit that hypothetically combining its disclosure with Toru would not be undertaken by one skilled in the art and, in any event, would not result in the Applicants' claimed subject matter. The Applicants discovered that a selected amount or more of nonprecipitated Nb or Ti is effective for preventing the growth of grains, contrary to conventional knowledge that controlling the precipitates is effective.

Further, by controlling annealing conditions within a selected range, as well as limiting the steel components and hot-rolling conditions, such as the final temperature at finish-rolling and the coiling temperature, the Applicants discovered that the given amount or more of nonprecipitated Nb or Ti is secured in a nonprecipitated state, that is, a solid solution state that the crystal grain size is controllable within a specified range, and that the mechanical properties are stabilized after heat treatment in the tube production process.

Tosaka teaches exceedingly soft steel wherein nonprecipitated Nb is effectively used. This is contrary to the claimed steel. Steel having the highest strength disclosed in Tosaka is Steel 3 with a tensile strength of: 39kgf/mm<sup>2</sup> (382MPa) shown in Table 3. However, this does not satisfy the claimed yield strength of at least 560 MPa. The value of tensile strength in the same steel is larger than the value of the yield strength. Thus, Tosaka provides teachings that are completely contrary to the claimed steel strip. Therefore, the Applicants' claimed constituent elements are unlikely to be gleaned from Tosaka.

As noted above, it would be improper to equate steel plate and steel strip. Those skilled in the art fully appreciate that steel plate is not coiled. Therefore, hypothetically combining Tosaka with Toru would not cure this fundamental deficiency of Toru. The fact that Tosaka may be coiled, does not mean that one skilled in the art would take a steel strip of Tosaka, which those skilled in the art readily know may be coiled, and coil a steel plate. This is simply not done in the art.

Then, there is the problem that the Tosaka steels are exceedingly soft and do not produce a yield strength similarly to that claimed. Thus, one skilled in the art would have no other incentive to look to Tosaka for any hypothetical combination. As a result, one skilled in the art would not make the combination. Withdrawal of the rejection is respectfully requested.

Claims 1, 3, 5, 7, 17, 19, 21 and 23 stand rejected under 35 U.S.C. §103 over Ishizaki. The Applicants respectfully submit that Ishizaki fails to provide teachings that render the solicited claims obvious.

Ishizaki does not disclose the ratio of the amount of precipitated Nb in a finished hot-rolled steel strip. Although Ishizaki discloses in Col. 3, Lines 45-64 that the amount of precipitated Nb is 0.02% (1/3 of precipitated Nb, at low temperature rolling), this is an amount of precipitation from the

start of rolling to the initiation of ferrite precipitation. The Applicants invite the Examiner's attention to Lines 49-51 in particular. However, there is no disclosure of the precipitation ratio in a finished hot-rolled steel in Ishizaki.

In general, Nb carbonitride precipitates partially during ferrite transformation. However, Ishizaki uses steel containing high carbon quantities outside the claimed range. From this, excessive precipitation of Nb carbonitride is very likely and the Applicants' CTOD toughness is not obtained.

The Applicants respectfully submit that Ishizaki would actually lead one skilled in the art away from the claimed subject matter inasmuch as Ishizaki relates to the amount of precipitation from the start of rolling to the initiation of ferrite precipitation, but not the precipitation ratio of a finished hot-rolled steel as in the Applicants' claims. Thus, the Applicants respectfully submit that Ishizaki can hardly render the claims obvious. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury  
Reg. No. 31,750  
Attorney for Applicants

TDC/sh  
(215) 656-3381